

Listing of the Claims

1. (Currently Amended) A modular plastic structural ~~composite~~ member comprising:

a web section disposed along a horizontal axis; and

~~at least one or more flange section~~ sections disposed along a horizontal axis parallel thereto and integrally molded to engage the top or bottom surface of said web section, wherein the width of said flange sections measured perpendicular said horizontal axis of said flange section to is two to ten times the width of said web section measured perpendicular to said horizontal axis of said web section; and further

wherein said ~~composite~~ structural member is formed from a ~~mixture~~ co-continuous immiscible polymer blend of [(A)] ~~a~~ high density polyolefin and [(B)] ~~a~~ thermoplastic polymer-coated fiber material, ~~polystyrene, or a combination thereof~~ thermoplastic polymer having fiber material embedded therein.

2. (Currently Amended) The modular plastic structural ~~composite~~ member of claim 1, wherein said high-density polyolefin is high-density polyethylene (HDPE).

3. (Currently Amended) The modular plastic ~~composite~~ structural member of claim 1, wherein said ~~thermoplastic-coated~~ fiber material is a ~~thermoplastic-coated~~ carbon or glass fiber.

4. (Currently Amended) The modular plastic ~~composite~~ structural member of claim 1, wherein the vertical dimension (thickness) of ~~the~~ said flange sections ~~is~~ are about one-tenth to about one-half the size of the vertical dimension of ~~the~~ said web section without any flange ~~section(s)~~ sections.

5. (Cancelled)

6. (Currently Amended) The modular plastic ~~composite~~ structural member of claim 1, characterized by being an I-Beam.

7. (Currently Amended) The modular plastic ~~composite~~ structural member of claim 1, characterized by being a C-Beam.

8. (Currently Amended) The modular plastic ~~composite~~ structural member of claim 1, characterized by being a T-Beam.

9. – 18. (Cancelled)

19. (Currently Amended) The modular plastic ~~composite~~ structural member of claim 1 [[or claim 9]], wherein said composite comprises from about 20 to about 90 wt % of a polymer component that is at least 80 wt % HDPE and from about 10 to about 80 wt % of thermoplastic polymer-coated fibers.

20. (Currently Amended) The modular plastic ~~composite~~ structural member of claim [[17]] 19, characterized by exhibiting a compression modulus of at least [[170,000]] 350,000 psi. and a compression strength of at least [[2500]] 4000 psi.

21. (New) The modular plastic structural member of claim 19, wherein the weight ratio of said thermoplastic polymer to said fiber is between 10:90 and 90:10.

22. (New) The modular plastic structural member of claim 1 wherein said thermoplastic polymer is selected from a group consisting of polypropylene and polystyrene.

23. (New) The modular plastic structural member of claim 1 wherein said structural members may be perpendicularly nested with each other.

24. (New) The modular plastic structural member of claim 1 wherein said flange sections form a 90° angle with said web section, such that additional structural members can be nested in the recess formed by said flange sections and said web section and be supported by at least one of said flange sections.